

9192

Diag. Cht. No. 1286-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-36(48)C Office No. T-9192

LOCALITY

State Texas

General locality Kleberg County

Locality Cayo Del Mazon

1951

CHIEF OF PARTY

George E. Morris, Jr., Chief of Field Party  
Hubert A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE Nov-5-1953

B-1870-1 (1)

9192

DATA RECORD

T - 9192

Project No. (II): Ph-36(48)C

Quadrangle Name (IV): Riviera Beach, NE

Field Office (II): Brownsville, Texas

Chief of Party: George E. Morris, Jr.

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: Hubert A. Paton

Instructions dated (II) (III):

14 February 1949, Supplement No. 1 (Field) 9 May 1949  
 Supplement No. 2 (Field) 26 July 1949  
 Supplement No. 2 (Field) 28 July 1949  
 Office compilation assignment 8 June 1949

Copy filed in Division of  
 Photogrammetry (IV)

Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): 5-23-50 Date reported to Nautical Chart Branch (IV): 9/5/26/50

Applied to Chart No. 894 Date: 11-15-51 Date registered (IV): 10-6-52

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N. A. 1927

Vertical Datum (III): MSL

Mean sea level except as follows:  
 Elevations shown as (25) refer to mean high water  
 Elevations shown as (S) refer to sounding datum  
 i.e., mean low water or mean lower low water

Reference Station (III): PORTALES, 1949

Lat.: 27° 25' 59.<sup>487</sup><sub>470</sub>" (<sup>CHK</sup>1830.4m) Long.: 97° 36' 14.<sup>217</sup><sub>214</sub>" (<sup>CHK</sup>390.4m)

~~adjusted~~ <sup>CHK</sup>

Plane Coordinates (IV):

State: Texas

Zone:

South

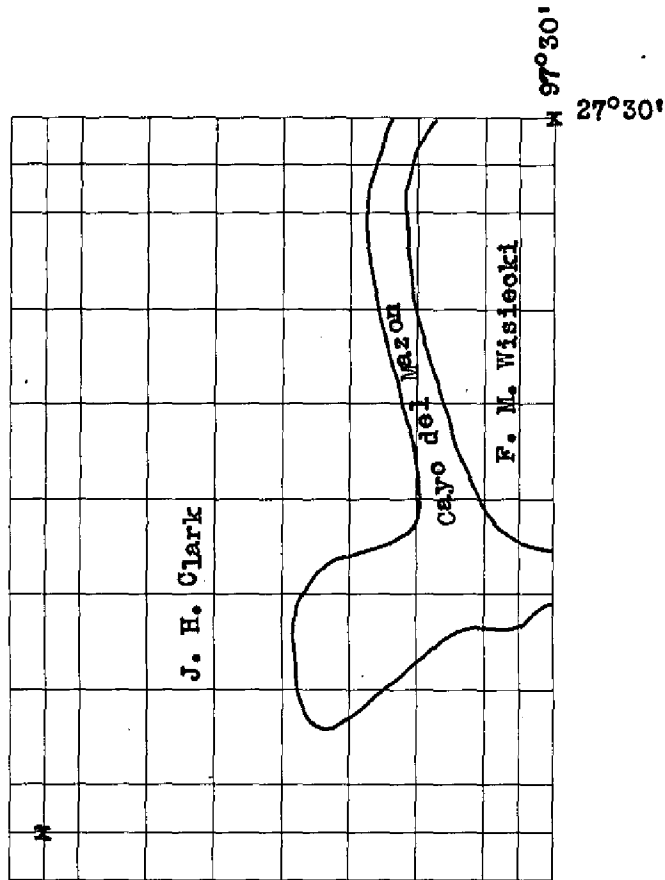
Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

27°22'30"



97°37'30"

Areas contoured by various personnel  
(Show name within area)  
(II) (III)

DATA RECORD

F.M. Wisiecki  
Field Inspection by (II): J.H. Clark

Date: July, August &  
September 1949

Planetable contouring by (II): F.M. Wisiecki  
J.H. Clark

Date: July, August &  
September 1949

Completion Surveys by (II): William H. Shearouse

Date: Nov. 1951

Mean High Water Location (III) (State date and method of location):

Not mapped. *EHC*  
See § 7, this report.

Projection and Grids ruled by (IV): W.E.W.

Date: 10-18-49

Projection and Grids checked by (IV): H.D.W.

Date: 10-21-49

Control plotted by (III): F.J. Tarza

Date: 12-27-49

Control checked by (III): W.L. Lineweaver

Date: 12-30-49

Radial Plot ~~on Stereoscopic~~  
~~Instrument~~ by (III): F.J. Tarza

Date:  
1-18-50

Planimetry  
Stereoscopic Instrument compilation (III):  
Contours

Date:

Date:

Manuscript delineated by (III): M.L. Bloom

Date: 3-8-49

Photogrammetric Office Review by (III):  
J.W. Vonasek

Date: 5-12-50

Elevations on Manuscript  
checked by (II) (III): J.W. Vonasek

Date:  
4-27-50

Camera (kind or source) (III): U.S.C. & G.S. single lens type "0", 6" focal length.

Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
		Time			
48-0-1356 to 48-0-1359	12-8-48	1309		1:20,000	None
48-0-1394 to 48-0-1397	12-8-48	1403		1:20,000	

Tide (III)

Reference Station: ~~No tide, see field report~~  
 Subordinate Station: The mean range of tide in  
 Subordinate Station: Baffin Bay is less than 1/2 foot.

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): E. H. Ramey

Date: 5-15-52

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 56  
 Shoreline (More than 200 meters to opposite shore) (III): None  
 Shoreline (Less than 200 meters to opposite shore) (III): 8 mi.  
 Control Leveling - Miles (II): 25.0  
 Number of Triangulation Stations searched for (II): 9\* Recovered: 9\* Identified: 5\*  
 Number of BMs searched for (II): 15 Recovered: 15 Identified: 15  
 Number of Recoverable Photo Stations established (III): 2  
 Number of Temporary Photo Hydro Stations established (III): none

Remarks:

\*HINDJOSO 1949 reported although just inside quadrangle T-9193( ).

STATISTICS OUTSIDE THE QUADRANGLE (ALSO PROJECT):

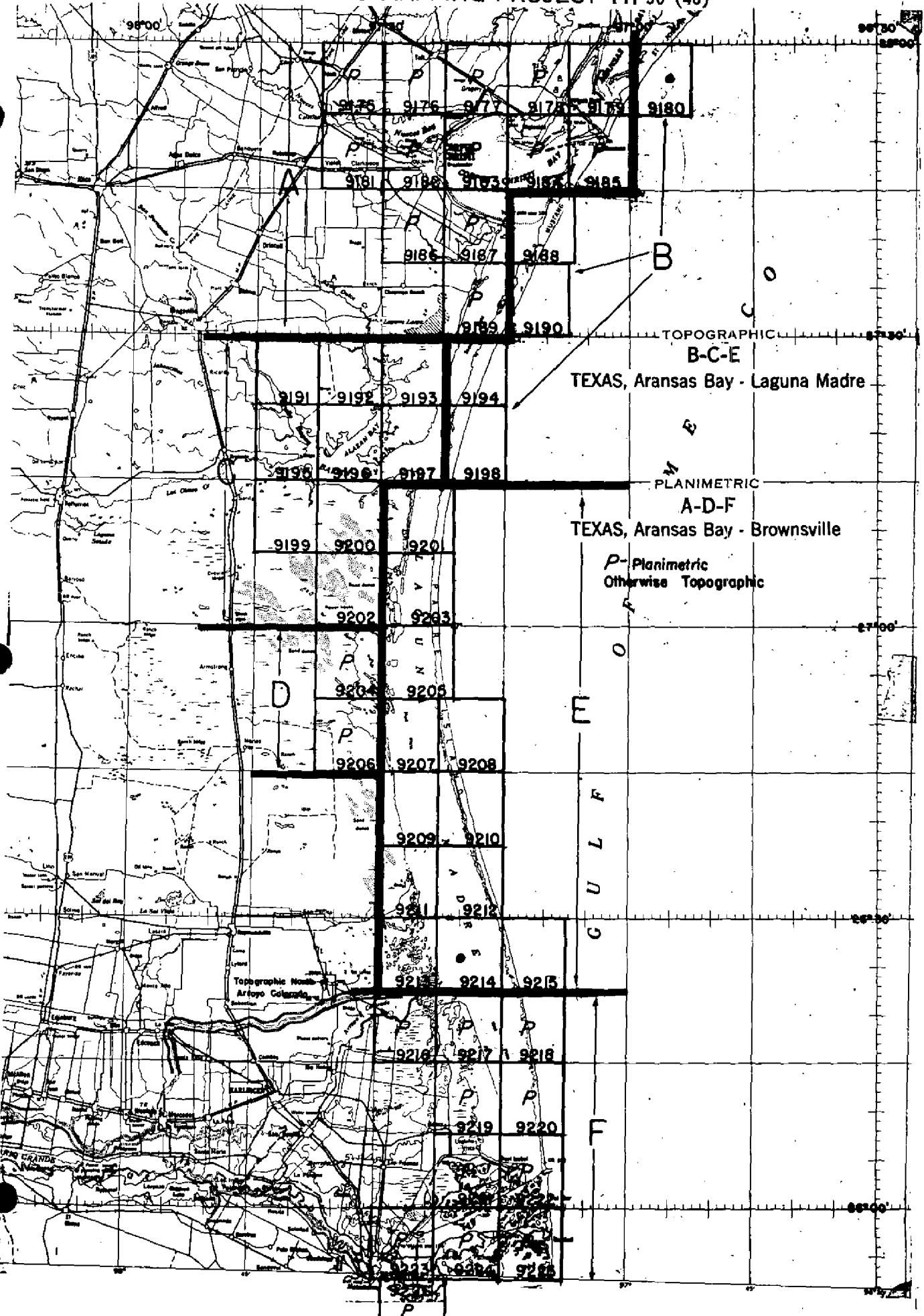
(1) Triangulation

- a. USC&GS - 5 stations were searched for, 5 were recovered, and 4 were identified.
- b. USGS - 5 stations were searched for, 5 were recovered, and 5 were identified.

(2) Bench Marks

- a. USC&GS - 16 were searched for and 15 were recovered.
- b. USGS - 5 were searched for and 5 were recovered.

TOPOGRAPHIC AND PLANIMETRIC MAPPING PROJECT PH-36 (48)



SUMMARY T- 9192

Project Ph-36(48) consists of fifty-two quadrangles at 1:20,000, each 7.5 minutes in latitude and longitude, covering the Gulf Coast of Texas and the Intra-coastal Waterway from Aransas Bay to Brownsville and the Mexican Border. Adjoining the project to the north is a series of shoreline surveys in Part IV of Project Ph-14(46).

Information concerning Ph-36(48) in its broader aspects will be included in a project completion report to be compiled at the conclusion of the review of all surveys in this project.

Twenty-six of the quadrangles in this project are topographic surveys and are to be published at 1:24,000 scale by the Geological Survey. The other twenty-six quadrangles are planimetric surveys. Of these, nineteen are to be used as bases by the Geological Survey for the compilation of 7.5 minute topographic quadrangles and will not be published as planimetric maps. The remaining seven, T-9175, T-9176, T-9177, T-9181, T-9189, T-9204, and T-9205, will be published as planimetric maps.

Glith-backed lithographic prints of the original topographic manuscripts at compilation scale and the descriptive reports for all maps in this project will be filed in the Bureau Archives. Glith-backed copies of the published topographic quadrangles at 1:24,000 scale will also be filed.

All special reports except the Geog. Names Report will be filed in the Project Completion Report.

## 2. AREAL FIELD INSPECTION

This quadrangle is situated in the north central part of Kleberg County, Texas. The relief varies from prominent along the eroded streambeds and mesquite covered ridges to relatively flat in the remaining areas. The soil is a sandy clay silt loam that is typical of the coastal prairie region. The silt and clay content is heavy enough to make the area very difficult to traverse, even with four-wheel drive vehicles, when wet.

The entire quadrangle is in the Laureles Division of King Ranch and is used exclusively for grazing purposes. The area is unpopulated and the several buildings shown on the field inspection photographs include a few bunkhouses that are used during roundups. The area is accessible only through locked gates. Because of the noted absence of cultural features; fences, windmills, and corrals have been indicated on the field inspection photographs.

Photography was adequate for field work and no vegetation growths peculiar to the general area were encountered. A heavy growth of grass, generally found between the five and ten foot contour, photographed with practically the same tone as the scrub that is found on higher ground. However, the grass is represented by a uniform tone whereas the scrub appears as slightly mottled. In many areas the growth from open to scrub is very gradual and the line of demarcation is indefinite. For this reason the field inspector has delineated several marginal growths that might give the compiler trouble.

Field inspection was performed on the contour photographs.

Field Editor see paragraph 5 concerning the delineation of Agua Dulce Creek (Cayo del Mazon and Cayo de Hinoso).

## 3. HORIZONTAL CONTROL

See "Special Report, Supplemental Control, Project Ph-36(48)." See § 14, *this report*

The station mark for USC&GS station HINDJOSO 1949 falls just east of the quadrangle and in quadrangle T-9193( ). The azimuth mark is just inside this quadrangle. Recovery and identification data are submitted with this quadrangle. Filed in *Div. of Photogrammetry*

The following USC&GS third-order 1949 intersection stations established by this field party within the limits of photography were not identified because of a plethora of other identified control:

BURRO WINDMILL; GUAYACAN WINDMILL; HUISACHE WINDMILL;  
NORIA DAN WINDMILL; ZACAHUISTLE WINDMILL.



The following USGS stations, north of the quadrangle, were recovered and identified:

PRIM TRAV STA NO 5 1922 TEXAS F18
" " " " 6 " " F19
" " " " 32Y " " A8
" " " " 33Y " " A9

USGS station PRIM TRAV STA NO 31Y 1922 TEXAS A7, also north of the quadrangle, was not identified since it is a reference mark for USC&GS station CHILTIPIN 1949. CHILTIPIN was identified.

Horizontal control identification was made on the following photographs: 48-0-1356; 48-0-1359; 48-0-1360; 48-0-1392; 48-0-1393; 48-0-1394; & 48-0-1395.

#### 4. VERTICAL CONTROL

Within the quadrangle, the following USC&GS second-order bench marks were recovered and identified approximately on the contour photographs: R 632; S 632; T 632; U 632; V 632; W 632; X 632; Y 632; Z 632; A 634; F 920; G 920; X 919; Y 919.

Humble Oil & Refining Company bench mark L-17, believed to be second-order, was identified approximately on contour photograph 48-0-1397 and Form 638 submitted. (See quadrangle T-9196( ) for complete information and records of Humble Oil & Refining Company levels).

To provide additional control for the contours, 25 miles of fourth-order levels were run between USC&GS second-order bench marks in the immediate area and TBM's 92-01 to 92-37 inclusive were established. The maximum error of closure was 0.75 ft., and all closures in excess of 0.36 ft. were prorated throughout the loop in error. Level points (TBM's) were spotted on the contour photographs.

#### 5. CONTOURS AND DRAINAGE

Contouring was done by standard planetable methods on single lens ratio prints. Photographs were carefully examined under the field stereoscope prior to field work and again before inking of the pencil contours.

Field contouring was greatly facilitated in the scrub areas by occupying, with planetable, a platform built atop a standard panel truck; and in the large open areas by allowing the rodmen to use vehicles.

Vertical accuracy checks run as a check on the topographer along with the required changes in the contours have been indicated in violet ink. Original contours in brown ink that were found in error have been deleted with "X's" in green ink.

*See § 53, this report*

Satisfactory contour junctions were made with quadrangle T-9191( ) on the west, quadrangle T-9193( ) on the east, and quadrangle T-9196( ) on the south. A planetable traverse was run along the project limit on the north side of the quadrangle.

Contouring was done on the following photographs: 48-0-1356 to 48-0-1359 inclusive; 48-0-1394 to 48-0-1397 inclusive.

The entire quadrangle drains into Alazan Bay. Agua Dulce Creek (Cayo del Mazon and Cayo de Hinoso) has been classified as perennial by the field inspector and the approximate limits of the streambed where running water is believed to be usually found have been delineated on the contour photographs. This field delineation was accomplished on 18 October 1949 and follows a definite photographic tone. However, the water level is influenced primarily by wind action upon the waters of Alazan Bay, and a brisk, prevailing southerly wind will force water up the creek beyond the north limit of the quadrangle. The slope between the center of the delineated stream and the storm water, or wash, line is usually a constant flat slope, and when not covered by water there is no distinguishable perennial streambed limit. For these reasons it is difficult to delineate anything but an approximate streambed limit\* and it is recommended that the field editor verify the field inspector's delineation.

\* Not mapped. *AK*

The storm water line, or wash line, results from the action of unusually strong prevailing southerly winds on Alazan Bay, or from excessive rain runoffs, and is very near the vegetation line, or the five foot contour, whichever is found farther offshore. A more exact location would be impractical without precise planetable methods. *See § 68, this report*

#### 6. WOODLAND COVER

Woodland cover consists only of scrub growths of mesquite, principally on the ridges, and covers approximately ten per cent of the entire quadrangle. *See item 67, this report*

#### 7. SHORELINE AND SHORELINE FEATURES

The mean water line of Alazan Bay does not quite extend into this quadrangle. All elevations in the center of streambeds entering the quadrangle and along the shoreline of Alazan Bay included in the SE corner of the quadrangle are above 1.4 ft. See contour photographs for this quadrangle, quadrangle T-9193( ), and quadrangle T-9196( ). *See § 68, this report*

#### 8. OFFSHORE FEATURES

Inapplicable.

#### 9. LANDMARKS AND AIDS

Inapplicable.

10. BOUNDARIES, MONUMENTS, AND LINES

See "Special Report, Boundaries, Baffin Bay to Latitude N 28°00', Project Ph-36(48)." *Filed in Div. of Photogrammetry. See §41, this report.*

11. OTHER CONTROL

Two azimuth marks within the quadrangle, HINDJOSO 1949 and PORTALES 1949, were located by chaining the distances from the station marks, and the measurements are submitted on Form M-2226-12, and also included on the recovery notes for the stations.

The quadrangle is too far from navigable water to require the establishment of topographic stations.

12. OTHER INTERIOR FEATURES

All roads were classified in accordance with Photogrammetry Instructions No. 10, dated 14 April 1947, and the Topographic Manual. All roads within the quadrangle are private.

All buildings to be shown have been classified in accordance with Photogrammetry Instructions No. 29, dated 1 October 1948, and the Topographic Manual.

Two former Navy auxiliary landing fields, Field 14 and Field 15, are within the quadrangle and have been indicated. The Navy has abandoned both fields, and they have reverted back to their original use as cattle pastures and see only occasional use by sportsmen flying small planes.

13. GEOGRAPHIC NAMES

See "Special Report, Geographic Names, Aransas Bay to Baffin Bay, Project Ph-36(48)," *filed in Geographic Names Section, Div. of Charts.*

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

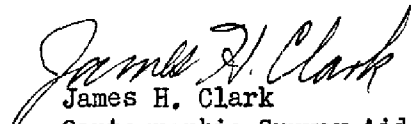
"Special Report, Supplemental Control, Project Ph-36(48)", forwarded to Washington 20 July 1949, *filed in Div. of Photogrammetry.*

"Special Report, Boundaries, Baffin Bay to Latitude N28°00', Project Ph-36(48)", forwarded to Washington 20 July 1949. *See §10 above.*

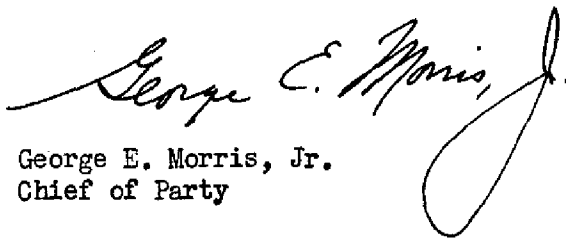
"Special Report, Geographic Names, Aransas Bay to Baffin Bay, Project Ph-36(48)", forwarded to Washington 27 July 1949. *See §13 above.*

Records, Quadrangle T-9192( ), to Baltimore 26 October 1949 by  
letter of transmittal Ph-36 Field 42.

Submitted  
21 October 1949

  
James H. Clark  
Cartographic Survey Aid

Approved  
26 October 1949

  
George E. Morris, Jr.  
Chief of Party

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE		DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	
MUJERES GRANDES WINDMILL, 1949	G-8133 P.11 Field	N.A. 1927	27 30	20.948				644.8	1202.0	N. of map limits
SUB. PT. MUJERES GRANDES WINDMILL 1949			97 30	24.254				665.7	981.1	
FIELD 14 WINDMILL, 1949	G-8133 P.11 Field	"	27 30	31.702				665.4	1181.4	N. of map limits
SUB. PT. FIELD 14, WINDMILL, 1949		"	97 30	29.200				693.9	952.9	
BURRO WINDMILL, 1949	G-8133 P.11 Field	"	27 28	50.762				1822.2	24.6	
NORIA MARIA WIND-MILL, 1949	G-8133 P.11 Field	"	97 33	03.750				870.3	776.8	
SUB. PT. NORIA MARIA WINDMILL, 1949		"	27 29	10.147				1835.5	11.5	
FIELD 15 WINDMILL, 1949	G-8133 P.11 Field	"	97 34	24.168				739.8	907.3	
SUB. PT. FIELD 15 WINDMILL, 1949		"	27 29	50.762				1562.5	284.3	
ZACAHUISTLE WIND-MILL, 1949	G-8133 P.12 Field	"	97 33	06.979				102.9	1544.0	
HUISACHE, WINDMILL, 1949	G-8133 P.12 Field	"	27 29	10.201				312.3	1534.5	
GUAYACAN WIND-MILL, 1949	G-8133 P.12 Field	"	97 34	29.568				663.4	983.6	
		"	27 29	25.525				361.8	1485.0	
		"	97 36	17.170				689.4	957.6	
		"	27 27	24.445				752.4	1094.3	
		"	97 33	41.866				1149.6	497.9	
		"	27 37					836.6	1010.1	
		"	97 33					1090.3	557.2	
		"	27 36	10.201				314.0	1532.7	
		"	97 33	29.467				1083.9	563.9	
		"	27 29	06.979				214.8	1632.0	
		"	97 36	29.568				811.7	835.4	
		"	27 27	25.525				785.6	1061.1	
		"	97 36	17.170				471.5	1176.0	

MAP T. 2122 PROJECT NO. Ph-36(48)C SCALE OF MAP 1:20,000 SCALE FACTOR None.

COMPUTED BY: W. Lineweaver DATE: 19 December 1949 CHECKED BY: F. J. Tarca DATE: Dec. 22, 1949

MAP T. 9192

PROJECT NO. Ph-36(48)0

SCALE OF MAP 1:20,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\nu$ -COORDINATE LONGITUDE OR $x$ -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
			27	25	97	36		FORWARD	(BACK)	FORWARD	(BACK)
PORTALES, 1949	G-8043 P.5 Field	N.A. 1927	27	25	97	36		1830.4	16.3		
SUB.PT. PORTALES, 1949			27	25	97	36		1778.5	68.2		
AZIMUTH MARK PORTALES, 1949			27	25				381.0	1266.9		
AZIMUTH MARK HINDJOSO, 1949			27	25				238.8	1607.9		
			97	36				824.4	823.5		
			27	23				1553.7	293.1		
			97	30				82.4	1566.0		

COMPILATION REPORT, T-9192

PHOTOGRAMMETRIC PLOT REPORT

The photogrammetric plot report for this survey is part of the descriptive report for Survey No. T-9191, submitted to the Washington Office 3 May 1950.

31. DELINEATION

The delineation was by graphic methods.

A discrepancy overlay has been prepared and is being submitted with this manuscript. The field inspection and photo coverage was complete and satisfactory.

32. CONTROL

The identification and density of horizontal control was adequate.

33. SUPPLEMENTAL DATA

Geographic names standard dated 11-4-49 on the Sarita quadrangle and Petronilla quadrangle. *Data on Names filed in Geographic Names Section, Div. of Charts.*

34. CONTOURS AND DRAINAGE

No comment.

35. SHORELINE AND ALONGSHORE DETAILS

There is no shoreline in the area.\* The storm water line or wash line was delineated below the five foot contour to avoid merging the two lines. See 55, See § 7, this report. Also 568. *this report*

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

Forms 524 for Portales Azimuth Mark, 1949 and Hindjoso Azimuth Mark, 1949, were prepared in the compilation office and are being submitted with this manuscript.

39. JUNCTIONS

Junctions to the west with Survey No. T-9191, to the south with T-9196 and to the east with T-9193 have been made and are in agreement. There is no contemporary survey to the north.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment. See § 53, this report.

41. BOUNDARIES

This survey is wholly within the boundaries of Commissioner. Precinct 4, Kleberg County. There are no boundaries in the area.

42 through 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with the Corps of Engineers, U. S. Army, Sarita quadrangle, scale 1:125,000, edition of 1920, revised in 1928.

47. COMPARISON WITH NAUTICAL CHARTS

A small area in the southeast corner of this survey appears on Chart No. 1286 published 8/1/49 corrected to September 19, 1949, but in such a generalized manner that comparison was not practical.

Respectfully submitted

Approved and forwarded  
23 May 1950

*Mary Louise Bloom*  
Mary Louise Bloom  
Cartographic Draftsman

*Hubert A. Paton*  
Hubert A. Paton  
Comdr., USC&GS  
Officer in Charge



50.

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9192

1. Projection and grids JAV 2. Title JAV 3. Manuscript numbers JAV 4. Manuscript size JAV

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy JAV 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) JAV 7. Photo hydro stations --- 8. Bench marks JAV 9. Plotting of sextant fixes None 10. Photogrammetric plot report JAV 11. Detail points JAV

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline None 13. Low-water line None 14. Rocks, shoals, etc. None 15. Bridges None 16. Aids to navigation None 17. Landmarks None 18. Other alongshore physical features None 19. Other along-shore cultural features None

PHYSICAL FEATURES

20. Water features JAV 21. Natural ground cover JAV 22. Planetable contours JAV 23. Stereoscope instrument contours --- 24. Contours in general JAV 25. Spot elevations JAV 26. Other physical features JAV

CULTURAL FEATURES

27. Roads JAV 28. Buildings JAV 29. Railroads None 30. Other cultural features JAV

BOUNDARIES

31. Boundary lines None 32. Public land lines ---

MISCELLANEOUS

33. Geographic names JAV 34. Junctions JAV 35. Legibility of the manuscript JAV 36. Discrepancy overlay JAV 37. Descriptive Report JAV 38. Field inspection photographs JAV 39. Forms JAV

40. Joseph A. Bonadek Reviewer Joseph Steinberg Supervisor, Review Section of Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

\_\_\_\_\_  
Compiler Supervisor

43. Remarks:

## Field Edit Report, T-9192

51. Methods.--To make a thorough ground comparison, all roads and trails were ridden out. The classification of each was checked and all natural and cultural features compared with the compilation. At the same time, questions raised by the reviewer were answered after the necessary investigation or study of the feature was made.

Deletions, additions and corrections were made on the Field Edit Sheet, Discrepancy Print or the photographs. Where made on the photographs, reference to the photograph number was noted on the Discrepancy Print. Photographs used were: 48-O-1356, 1394, 1395, 1396, and 1397.

Violet ink was used for additions and corrections; green for deletions.

52. Adequacy of compilation.--The compilation appears to be very good and will be adequate after application of field edit information. *See item 66*

53. Map accuracy.--No horizontal accuracy test was specified, but from visual inspection and points used to take-of and tie-in with the plane-table, the horizontal accuracy appears excellent. *See item 66*

Standard ~~plane~~table methods were used to run a vertical accuracy test in the vicinity of latitude 27 degrees 28.5 minutes, longitude 97 degrees 33.5 minutes. It began horizontally at a road intersection (point A on the Field Edit Sheet) and ended at points B and A on the Field Edit Sheet, which are road intersections. Vertically it began and ended at bench mark Y 919. The horizontal error of closure was 20 feet in azimuth; the vertical 0.5 foot low. No adjustments were made.

Results are as follows:

32 points tested.  
 29 points were within  $\frac{1}{2}$  contour interval.  
 3 points tested were in error more than  $\frac{1}{2}$  contour interval.  
 No points were in error more than 5 feet.

91% of all points were within the allowable limits of standard mapping accuracy.

Minor corrections in the contours have been made on the Field Edit Sheet. The contour pattern is good and believed to be adequate.

54. Recommendations.--No recommendations are offered.

55. Examination of proof copy.--It is recommended that the proof copy of the map be sent to the King Ranch Office, Kingsville, Texas, attention Mr. Robert C. Wells, for examination.

Geographic names.--JABONGILLOS RANCH was the only name in question and it was found to be correct. The authority for this name is the King Ranch foreman. He found no discrepancies in charted names.

Respectfully submitted,  
29 November 1951

*William H. Shearouse*  
William H. Shearouse,  
Cartographer

*Approved*  
3 Dec. 1951

*Lucy H. Bernstein*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
PHOTOGRAMMETRIC PARTY No. 2

POST-OFFICE ADDRESS: P. O. Box 216  
Raymondville, Texas

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

28 November 1951

To: The Director  
U. S. Coast and Geodetic Survey  
Washington 25, D. C.

Subject: Vertical Accuracy Test, Quadrangle T-9192,  
Project Ph-36(48)

A vertical accuracy test of approximately 2 miles length was run by standard planetable methods in quadrangle T-9192, in the vicinity of latitude 27 degrees 28.5 minutes, longitude 97 degrees 33.5 minutes, with the following results:

32 points tested.

29 points were within  $\frac{1}{2}$  contour interval.

3 points were in error more than  $\frac{1}{2}$  contour interval.

No points were found in error more than 5 feet.

91% of points tested were within the allowable limits of standard mapping accuracy.

Horizontal origin and termination were at road intersections. Error of closure was 20 feet in azimuth.

Vertically it began and ended at bench mark Y 919. Error of closure was 0.5 foot low.

No adjustments were made.

Respectfully submitted,

*William H. Shearouse*  
William H. Shearouse,  
Cartographer

*Approved*  
3 Dec. 1951

*Percy L. Bernsten*

48. GEOGRAPHIC NAMES

- Burro Windmill \*
- Cayo de Hinoso
- Cayo del Mazon
- Chiltipin Creek
- Commissioner's Precinct 4

Precincts not mapped. Therefore, not indicated. EHR

- Esquina Windmill

- Field 14 Windmill \*
- Field 15 Windmill \*

- Guyacan Windmill \*

- Hinojoseno Artesian Well
- Huisache Windmill \*

- Jaboncillos Ranch (position on sheet agrees with names report by Nelson)

- King Ranch
- Kleberg County

Little Tule Lake

- Noria Maria Windmill \*

- Petronilla Creek
- Portales Verde Windmill \* (position on sheet agrees with names report by Nelson)

- Tunas Creek

- Zacahuistle Windmill \*

\* Shown as "well" in all instances to maintain consistency. Both well and windmill will be indicated on finished map and manuscript. EHR

Names underlined  
in red are approved  
4-25-51. L. HECT

REVIEW REPORT  
Topographic Map T-9192  
15 May 1952

62. Comparison with Registered Topographic Surveys:

1627                      1:20,000                      1881-82

Survey T-9192 is to supersede this prior survey for nautical charting purposes for common areas.

63. Comparison with Maps of Other Agencies:

Sarita quadrangle (7,001.) 1:125,000 ed. 1920 rev. 1928

64. Comparison with Contemporary Hydrographic Surveys:

None

65. Comparison with Nautical Charts:

1286                      1:80,000                      1942 corr. 52-4/14

Changes and corrections resulting from the field edit and review of this map are shown on the manuscript in red.

66. Adequacy of Results and Future Surveys:

This map complies with project instructions and meets the National Standards of Map Accuracy.

67. Woodland Cover:

Reference item 6. An area of larger denser growth was indicated on field photograph 49-0-1557 as "trees" and is shown as such in the east central portion of this map.

68. Shoreline:

For a more comprehensive discussion of the mapping of the shoreline in Project Ph-36(98) see copies of instructions and correspondence which follow this report.

Reviewed by:

  
Everett H. Ramey

Approved:

S. V. Griffith  
Chief, Review Section  
Division of Photogrammetry

J. H. Edmonson  
Chief, Nautical Chart Branch  
Division of Charts GFS

O. S. Reading  
Chief, Div. of Photogrammetry  
Rus

Carl O. Heaton  
Chief, Div. of Coastal Surveys  
HCF

24 February 1950

To: Comdr. George E. Morris, Jr.  
U. S. Coast and Geodetic Survey  
Airport Branch Post Office  
Brownsville, Texas

Subject: Instructions - Project Ph-36(48)-Field,  
Supplement 1

Reference: Your letter of 1 February 1950. Subject:  
Shoreline in the Laguna Madre and previous  
correspondence on this subject.

1. These supplemental instructions cover the mapping of shoreline in Laguna Madre.

2. Where the mean high-water line is definite and can be readily distinguished on the ground, it shall be identified on the photographs and will be delineated on the manuscripts in the usual manner with a solid black line. As for example, at the southern end of the Laguna and along parts of the west shore the high-water line appears to be quite definite and subject to identification and delineation in the usual manner.

3. In the mud flat areas of Laguna Madre or in any part of the Laguna where the mean high-water line is indefinite and is not subject to accurate identification on the photographs, it shall be omitted and will not be mapped. In such areas the shoreline will be mapped as indicated in paragraph 4.

4. In the mud flat areas and in other areas where the mean high-water line is indefinite and is omitted as stated in paragraph 3, the storm water line shall be identified on the photographs and shall be mapped as the shoreline. The storm water line shall be shown on the manuscripts by a broken black line to represent the edge of land that is seldom, if ever, inundated. This line will be the limit of the buff tint on nautical charts.

5. In the mud flat areas and in other areas of the Laguna Madre where extensive areas are bare at low water stage, the approximate low-water line shall be indicated by the field inspection and shall be delineated on the



24 February 1950

manuscripts with a dotted line. This line will mark the limits of flats that are frequently inundated and will define the limits of the green tint on the nautical charts.

6. Each map manuscript on which any part of the shoreline is defined by the broken line specified in paragraph 4 shall carry the following note and this note shall be shown on the published maps:

Water stages in this area vary widely with meteorological conditions; the mean high-water line is extremely indefinite and has been omitted. The usual mean high-water line has been replaced with a broken line that defines the edge of land that is seldom, if ever, inundated. The dotted line represents the approximate mean low-water line and defines the edge of areas that are frequently inundated.

7. One flight of 1:20,000 nine-lens photographs will be flown along the center of the Laguna Madre as soon as aerial photography is started this spring, probably in late March or early April. The officer-in-charge of the photographic mission will contact you and will endeavor to fly these photographs when the water stage is either normal or below normal. These photographs will be taken especially for the field delineation of the approximate low-water line.

8. This office will consider favorably your estimates for the hire of a plane for field inspection of the photographs for delineation of the mean low-water line.

9. With reference to the last paragraph, page 2, of the reference letter, you are authorized to run cross-section level lines or do any surveying you consider economically justifiable for delineating the approximate mean low-water line on the photographs. You should keep in mind that the line to be mapped is an approximate mean low-water line for charting purposes and that it is not the intent of these instructions that the exact mean low water contour be mapped. If relatively stable high water conditions occur, short sounding lines at intervals normal to the mean low-water line might be preferable to the level lines mentioned in your letter. It is assumed that signals from opposite shores of the Laguna Madre would be visible for this purpose and that soundings from a skiff might serve the purpose as well as the level lines.

Comdr. Geo. E. Morris

-3-

24 February 1950

10. Reference should be made to the Humble Oil Company map and other tested survey data in sketching the approximate mean low-water line on the photographs. The low water contour will not be copied directly from such maps but will be compiled from the approximate line shown on the field inspection photographs.

11. Please do not hesitate to write to the office if you have further questions regarding these instructions.

/S/ L. O. COLBERT

Director

Excerpt from Bureau letter of April 26, 1950 to Mr. Nelson Jones, Humble Oil & Refining Company.

You are correct in your contention in paragraph 1 of page 2 of your letter "that the mean high water line is never indefinite where sufficient work has been done to determine it in accordance with accepted practice", but for the purposes for which our surveys are intended, it is only necessary generally to delineate a line which approximates the mean high water line. In accordance with this understanding, the following changes are being made in statements 1, 2, and 4 quoted under those numbers on the first page of your letter.

1. Where the high water line is indicated by definite differences in the terrain and can be readily distinguished on the ground, as in the southern end of Laguna Madre and along parts of the west shore, it shall be shown in the usual manner with a solid black line.
2. In the mud flat areas, or in any part of the Laguna madre where the high water line is not indicated by differences in appearance of the terrain, the high water line shall be omitted and will not be mapped. In these areas the storm water line shall be mapped as a broken black line to represent the edge of land that appears seldom, if ever, to be inundated, except perhaps in violent storms. This line will be the limit of the buff tint on nautical charts.
4. Each map on which the storm water line is shown shall carry the following note:

Water stages in this area vary widely with meteorological conditions; where the high water line is very indefinite it has been omitted. The usual high water line has been replaced with a broken line to indicate the edge of land which appears to be seldom, if ever, inundated except perhaps in violent storms. The dotted line represents the approximate low water line and the edge of areas usually inundated.

It must be emphasized that for the purposes of the nautical charts an approximation to mean high water is all that is needed for the guidance of the mariner, and this so-called high water line is estimated by the topographer from the physical appearance of the beach and the stage of the tide at the time the survey is made. Those using our charts must keep this limitation in mind, particularly if they are to be used for purposes for which the charts are not intended.

As you will appreciate from our letter dated December 20, 1949, it would be impracticable to attempt to delineate the line of mean high water on the charts of the Laguna Madre without a careful and thorough investigation made pursuant to law by our own engineers. The present appropriations of the Bureau do not provide for this type of investigation, except when Federal interests are involved.

The wording of a descriptive note for the areas in the vicinity of Laguna Madre is still under study and Comdr. Morris will be kept advised of the results of these studies.

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The wording of the explanatory note to be shown on charts and maps as shown in paragraph 4 is the result of subsequent conferences and has been adopted as the final wording in place of the wording given in paragraph 6 of the Project Instructions, Supplement 1, dated 24 February 1950.

O. S. Reading,  
Chief, Division of Photogrammetry

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April 30, 1951

Memorandum

To: Atlantic Region Engineer  
Central Region Engineer

From: Chief Topographic Engineer (RT-4)

Subject: Coast Survey manuscripts covering recent surveys  
on the southern Texas coast.

The following information should be noted by your cartographers for use when subject manuscripts are received from the Coast and Geodetic Survey for drafting and publication by the Geological Survey. Manuscripts covering the Laguna Madre areas (see the Lopena Island and Saltillo Ranch 15-minute maps) will be among the first deliveries from the South Texas project area of Coast and Geodetic Survey.

In a recent conference with Coast Survey personnel and Mr. Wilson of Humble Oil Company, some of the unusual features characterizing these areas were discussed. It appears that the mean high water line (our normal shoreline) cannot be determined in the Laguna Madre area and others of like character. Our old maps, and the new C&GS compilations, delineated as shoreline the limits of occasional inundation. It is now recognized that this line should be otherwise designated to avoid the implication that much of the Laguna Madre area is of a normal tideland nature. Actually most of this area is known as the Laguna Madre Flats--an essentially mainland feature. Except for a very small sector which Humble Oil mapped on a large scale (with 0.2 foot contour interval) the actual line of mean high water is indeterminate within feasible costs. The problem therefore resolves itself to one of an editorial nature, to devise some means of presenting the available facts in understandable form, and to convey the actual conditions properly for general map use.

The consensus recommendation is that of limiting the blue tint in the Laguna Madre area, and others of similar nature, to the low water line. The limits of occasional inundation (shown on our old maps and the C&GS manuscripts as normal shoreline) should be delineated by broken line on the dark blue drawing and should be described in the legend as noted below. This is an identifiable feature on the ground, and as such is an essential item of map content.

The treatment recommended herewith will pose a minor problem in occasional spots where the normal high waterline (shore) line is dropped (or changes to the line limiting occasional inundation) in estuaries from the Gulf. We understand that the low water line will closely parallel the shoreline in such cases and the blue

tint would therefore lack a bounding line only for a tenth of an inch or so.

Question was also raised concerning the relative propriety of the generic terms island vs potrero for specifically named isolated segments above the limits of occasional inundation. This question will be resolved by field check soon to be made by USC&GS and we should use the terms that will be indicated on their final compilations. Note attached copy of letter of April 24 from the Humble Oil Company to the Coast and Geodetic Survey.

The unusual conditions noted above will call for a marginal note on maps so affected, such as the following:

Water stages vary with meterological conditions. Approximate limits of occasional innundation shown by broken blue lines where mean high water (normal shore line) is undetermined for lack of visual evidence.

s/ Gerald FitzGerald  
Chief Topographic Engineer

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June 7, 1951

Mr. S. W. Oberg  
Chief Engineer  
Humble Oil & Refining Co.  
Post Office Box 2180  
Houston 1, Texas

Dear Mr. Oberg:

Careful consideration has been given to the several suggestions contained in your letters of June 27, 1950, March 20, 1951, and April 24, 1951, relative to the symbolization, notations, and nomenclature to be used on manuscript topographic maps and nautical charts of the Coast and Geodetic Survey covering the Laguna Madre area of Texas, or similar areas elsewhere.

In the light of these suggestions and the conferences had with your representatives, this Bureau is prepared to adopt the following procedures relative to these matters:

A. SYMBOLIZATION FOR MANUSCRIPT TOPOGRAPHIC MAPS  
(These are prepared as black and whites only)

(1) A solid heavy black line will be used for the high-water line where this feature is definite and marked by visible evidence on the ground.

(2) Where the high-water line is indefinite and is not marked by visible evidence on the ground, a broken line will be used to indicate the approximate inshore limits of areas subject to inundation.

(3) A dotted line will be used to represent the approximate low-water line.

B. SYMBOLIZATION FOR NAUTICAL CHARTS

(1) Where the high-water line has been delineated on the topographic map by a solid heavy black line, it will be so shown on the nautical charts.

(2) Where the high-water line has not been delineated on the topographic map, a light broken line will be used on the charts to indicate the approximate inshore limits of areas subject to inundation.

(3) The low-water line will be shown by a dotted line.

(4) Inshore of (1) or (2) above, a bluff tint will be used to show land above high water.

(5) Between (1) or (2) above and the low-water line, a green tint will be used.

(6) Offshore of (3) the area will be left blank or a blue tint will be used.

### C. SYMBOLICATION FOR QUADRANGLE MAPS

It is the understanding of this Bureau that the U. S. Geological Survey will limit the blue tint on the quadrangle maps to the low-water line for the areas where the high-water line is indefinite. In such cases the area inshore of the low-water line will be left untinted or will be symbolized by a fine black stippling.

### D. NOTATIONS TO BE USED

(1) On Manuscript Topographic Maps.--The following notation will be used on the manuscript topographic maps where the high-water line is omitted:

Note:

"Water stages in this area vary widely with meteorological conditions. The high-water line has been omitted where it is indefinite and is not marked by visible evidence on the ground. The broken line indicates the approximate inshore limits of areas subject to inundation. The dotted line represents the approximate low-water line."

(2) On Nautical Charts.--No notations regarding the omission of the high-water line or the nature of the broken line will be shown on the published chart. It is considered that the color symbolization provided for under section A above will sufficiently designate the character of the area.

(3) On Quadrangle Maps.--It is the understanding of this Bureau that the U.S. Geological Survey will place a notation in the margin of the map covering this area substantially the same as given in D (1) above but in an abbreviated form.

Regarding other notations suggested in your letters of June 27, 1950, and March 20, 1951, for use on our manuscript topographic maps and nautical charts, to the effect that "This map (or chart) is not intended for use as evidence of boundaries or property ownership," I regret that we cannot comply with this request. As was stated in my letter of October 10, 1950, it is the Bureau's desire to have its surveys and charts correctly interpreted by those having occasion to use them. It is also our desire to have them serve a maximum usefulness. While their primary purpose is to promote safety in navigation, we know from experience that they have a great many collateral uses. They have been used many times in the past in boundary disputes as evidence of the condition of our coastline as of a given date, or to show the successive changes (both natural and artificial) that have taken place in an area over a period of years. We would not want to



circumscribe their uses. The limitations that must be placed upon our surveys and charts are set out in the pamphlet titled "Coast and Geodetic Survey Data--An Aid to the Coastal Engineer," a copy of which was previously sent to you. I trust you will understand our position in this matter.

#### E. NOMENCLATURE

This office is cognizant of the importance of using correct geographic names on its surveys and charts, and special efforts are taken by our field parties and in our office investigations to arrive at the most probably correct name. Where published names differ from well-established local usage, our field parties are instructed to obtain verification from at least three local authorities. This was the case with the names that were placed on the advance prints of topographic maps T-9203 to T-9208, inclusive, that were sent to you.

The comments contained in your letter of March 20, 1951, as well as in the several letters received from interested parties, throw new light on the nomenclature problem of this area. In view of the conflicting information, a reevaluation is required of the correctness of the tentative names adopted by this Bureau.

It is our established practice to submit all names (generic or specific) of a conflicting nature to the U. S. Board on Geographic Names for final settlement. This Board is charged with responsibility for deciding all name conflicts. The Federal agencies are required to conform to the decisions of the Board. All of the information that has been received thus far, including letters, maps, etc., will be furnished to the Board. It might be mentioned that in 1943 the Board approved the name Lopeno Island, rejecting the form Potrero Lopena.

Should you wish to submit additional information to the Board, you may send it to the U. S. Board on Geographic Names, Department of the Interior, Washington 25, D. C. Pending final decision by the Board, conflicting names will be appropriately indicated on our topographic maps.

I wish to assure you of our full cooperation in these matters. It was indeed a pleasure to have been able to meet personally with representatives of your company. If I may be of further service to you, please do not hesitate to call on me again.

Very truly yours,

s/ R.F.A. Studds  
Rear Admiral, USC&GS  
Director

**NAUTICAL CHARTS BRANCH**

SURVEY NO. 9192

**Record of Application to Charts**

DATE	CHART	CARTOGRAPHER	REMARKS
15 Nov '57	894	H. MacEwan	Before <del>After</del> Verification and Review
			Before After Verification and Review
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A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.